CLAIMS

1. A method comprising:
   - sampling at differing sample times a section of a signal transmitted via a transmission channel,
   - determining the total number of edges in a sampled section,
   - analyzing neighboring sample values and forming therefrom a statistical value,
   - determining a figure of merit from the statistical value and total number of edges, and
   - deriving a jitter corresponding to the figure of merit by using one of a jitter-versus-figure of merit curve and a look-up table.

2. A method according to claim 1, wherein the sampling of the signal is an at least twofold oversampling.

3. A method according to one of claim 1 or claim 2, wherein the determining of the figure of merit includes the ratio between the statistical value and the total number of edges.

4. A method according to one of claim 1 or claim 2, wherein the determining of the total number of edges is determined as the number of pairs of neighboring sample values which are unequal.

5. A method according to one of claim 1 or claim 2, wherein the forming of the statistical value is a derivation from the nominal edge distribution.

6. A method according to one of claim 1 or claim 2, wherein the forming of the statistical value is a derivation from the number of nominal edges within one sample section,
   a nominal edge being an edge which occurs substantially in the middle of two sample

values indicating data bits.

7. A method according to claim 6, wherein, if the sampling of a transmitted signal is three-fold oversampled, each third sample value indicates a data bit.

8. A method according to one of claim 1 or claim 2, wherein the forming of the statistical value is a derivation of the number of early edges within one sample section, an early edge being an edge which occurs immediately after a sample value indicating a data bit.

9. A method according to one of claim 1 or claim 2, wherein the forming of the statistical value is a derivation of the number of late edges within one sample section, a late edge being an edge which occurs immediately before a sample value indicating a data bit.

10. A method according to claim 9, wherein the forming of the statistical value is a derivation of the sum of a number of early edges and the number of late edges, an early edge being an edge which occurs immediately after a sample value indicating a data.

11. A method according to one of claim 1 or claim 2 further comprising:
generating the selected one of aid look-up table and a jitter-versus-figure of merit curve during a calibration phase by:
a) determining for each sampled section of a determined number of sections of a transmitted signal a figure of merit,
b) determining by means of appropriate measuring equipment and for each sampled section of a determined number of sections of a transmitted signal a total jitter number, and
c) joining together the figure of merit and the total jitter number to form a pair of values in the selected one of the look-up table and the jitter number-versus-FM

curve.

12. A method according to claim 11, wherein the total jitter number is deviated from a jitter bathtub curve or an eye diagram.

13. A method according to claim 11, wherein a deterministic jitter number and a random jitter number are determined by means of said measurement equipment and are used for determining said total jitter number.

14. A method according to claim 13, wherein the random jitter number is modified by means of a reflexion phase shifter.

15. A method according to one of claim 1 or claim 2, wherein the transmission channel is an asynchronous serial link.

16. A method according to one of claim 1 or claim 2, wherein the transmission channel is a synchronous serial link.

17. A method according to one of claim 1 or claim 2, wherein corresponding figures of merit are determined for several sections of sampled signal, an optimal figure of merit is chosen, and a pre-emphasis unit of a transmission unit is matched to the optimal figure of merit.

18. A program product comprising:

a computer readable medium; and

computer readable code elements carried on said medium and effective when executing in a computer system to:

- sample at differing sample times a section of a signal transmitted via a transmission channel,
- determine the total number of edges in a sampled section,
- analyze neighboring sample values and forming therefrom a statistical value,

- determine a figure of merit from the statistical value and total number of edges, and

- derive a jitter corresponding to the figure of merit by using one of a jitter-versus-figure of merit curve and a look-up table.

19. Apparatus comprising:

a phase shifter;

an adjustable capacitance which is coupled to adjust the phase shift of said phase shifter;

an arbitrary waveform generator which is coupled to adjust said adjustable capacitance; and

a pulse pattern generator coupled to and controlled by said phase shifter.

20. Apparatus according to claim 19, wherein said capacitance is a varactor diode.

21. Apparatus comprising:

- a transmitter which transmits a signal,

- a receiver which receives a transmitted signal and has a sampling unit for sampling the received signal, and

- an analyzing unit which determines (a) the total number of edges in a sampled section of the received signal, (b) a statistical value from neighboring sample values, (c) a figure of merit, and (d) derives a jitter number corresponding to the figure of merit by using of one of a look-up table and a jitter-versus-figure of merit curve.

22. Apparatus according to claim 21, wherein said analyzing unit also determines an adaptation parameter from said jitter number, and said transmitter comprises a pre-emphasis unit which can be adapted by said adaptation parameter of said analyzing unit.

23. Apparatus according to one of claim 21 or claim 22, further comprising a phase rotator for defining the sample times.